

BUILDINGS FOR HIGHWAY MAINTENANCE

DEVELOPMENT AND CONSTRUCTION PROGRAM FOR THE
NEW JERSEY STATE HIGHWAY DEPARTMENT



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History and Introduction

The expanded highway construction program in New Jersey is making its impact on highway maintenance activities. Starting with Fiscal Year 1962-1963, significant mileages of completed interstate highways are now being opened and transferred from the State Highway Department's construction divisions to its maintenance division for operation. Dualization of other roads and new freeways is also adding road mileage. All of this is of quality construction which merits high order maintenance.

While giving its roads high quality maintenance through the years the Department followed an austerity policy toward its buildings and did not plan or construct buildings commensurate with its highways. This practice led to an embarrassing buildings inventory and a policy decision by Commissioner Dwight R. G. Palmer to up-grade existing maintenance facilities as fast as funds would permit and to provide modern and adequate facilities for new roads and new maintenance sections.

During earlier days of the Highway Department, the total maintenance facilities provided for section crews were in the form of the "gang box", containing the required picks, shovels, brooms and other equipment. No effort was made for providing shelter or even the barest necessities for personal needs. In periods of inclement weather, personnel was sent home without pay because road work could not be performed. When the lay-off policy was changed and personnel was not sent home because of weather, crews improvised by constructing a variety of shacks or shanties to obtain some measure of protection from the elements for themselves, their tools, materials and equipment.



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A typical early crew-built maintenance building, recently abandoned is shown above. The installation squatted on road right-of-way and encroached on private property. Storage space for materials and equipment was inadequate, and operation was extremely hazardous due to a lack of yard area. Although electricity was sometimes provided, there was no water, heat or toilet facilities.

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Another typical example of makeshift construction by crews, still in operation. Here again, the only utility available is electricity. Although buildings were constructed by the crew (using a wide assortment of salvaged materials), the property is leased on a month-to-month basis, a situation unsatisfactory for major improvement.

In the 1930's two small buildings were constructed with funds and labor of the federal National Youth Administration program. These buildings have now become obsolete and are under-sized by today's standards, but are still in use pending eventual redevelopment. The end of the N. Y. A. program terminated the effort to construct maintenance yards throughout the State, and no subsequent program was undertaken until 1956, when Commissioner Palmer initiated a survey which determined the acute need for such a program.

THE DEVELOPMENT PROGRAM

In 1958 a new Buildings and Grounds Section was added to the Division of Maintenance and Operations. Primary mission of the Section is to develop, plan and construct the physical plant required for maintaining the road system, as well as to safeguard plant investment through adequate planned maintenance.

The physical plant includes maintenance yards and buildings, major repair shops and garages, and district offices accommodating field supervisory personnel. Yards serve as bases from which road, bridge, landscape, sign and electrical repair, maintenance and construction work is performed. In addition, yards are storage locations for rolling stock, repair equipment, tools, construction materials and winter snow and ice control materials. The necessity for well-equipped, strategically located yards to perform these functions is vital. Shops and garages provide the servicing, repair and storage of construction and maintenance equipment and all Department vehicles. District offices from which maintenance operations are directed for specified geographical areas, provide closer control than could be achieved by a single centralized control in Trenton.

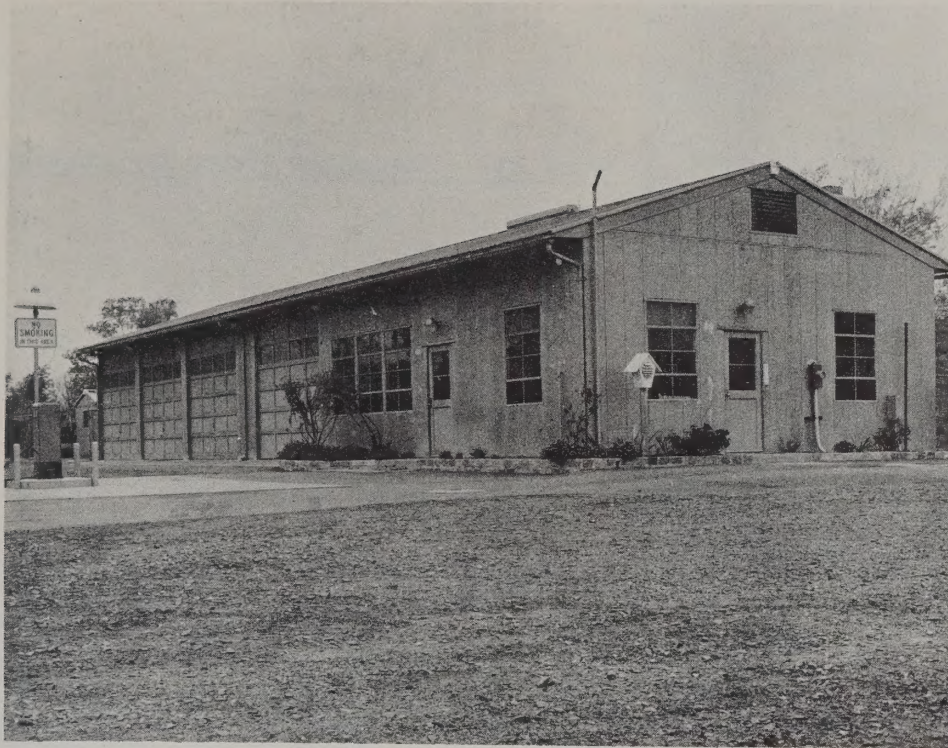
The Department has embarked on a long-range program to obtain necessary locations and provide minimum facilities of shelter, heat, water, light and electricity for use by its field personnel, especially during periods of inclement weather, and for the storage and protection of materials. Returns from this investment are three-fold: (1) Tools, equipment and materials are protected from the elements, thereby reducing deterioration; (2) Protection from loss through theft and vandalism is assured; (3) Space is provided for conducting indoor work

during bad weather, utilizing manpower which otherwise would be largely lost. This loss of manpower utilization has been a major problem which can only be solved by providing buildings adequate in size for working inside.

The section plans, engineers, and supervises development of the site for every new installation. In many cases, suitable parcels of land must be located and acquired for the facility. In addition to the main building, essential components of a modern yard are provided for, such as drainage and paving, landscaping, various outbuildings to house perishable bulk materials, and fencing for protection of materials and equipment stored outside.

Three methods have been generally used by the Buildings and Grounds Section to construct buildings under this program: (1) Major buildings designed by outside architects and constructed under contract; (2) Construction of minor facilities by Department forces when availability of skilled labor permits; and (3) Acquisition of properties with existing buildings and structures which are suitable for maintenance operations after minor modifications and renovations.

THE CONSTRUCTION PROGRAM



Route 1 - Sand Hill, Middlesex County



Construction on the first building under the development program was started in 1958 at Sand Hill (above), replacing small quarters rented in a portion of the building (right), of a private contractor. The ground at the rear of the building was used for the storage of materials, but it was unprotected and possibility of theft was ever existent.

The property was also the first to be purchased to serve solely as a maintenance yard. Beside the main structure, this installation contains its own water supply and sewage disposal systems, surface water drainage system, gasoline pumps, fenced storage area, yard lighting, landscaping, and various smaller outbuildings for materials storage.

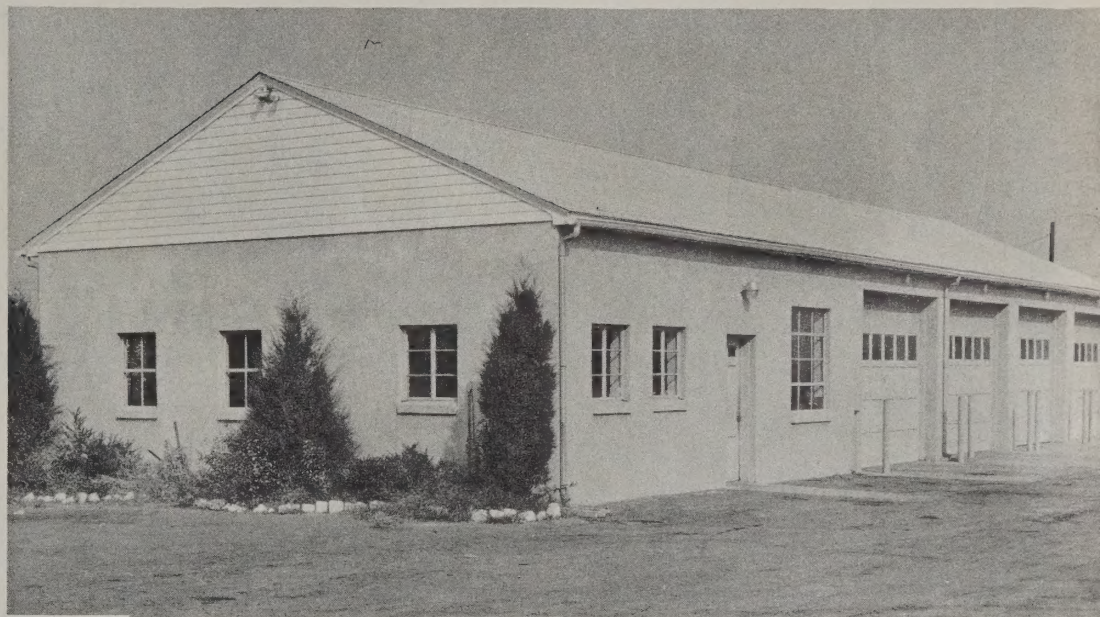


Route 130 - Edgewater Park, Burlington County

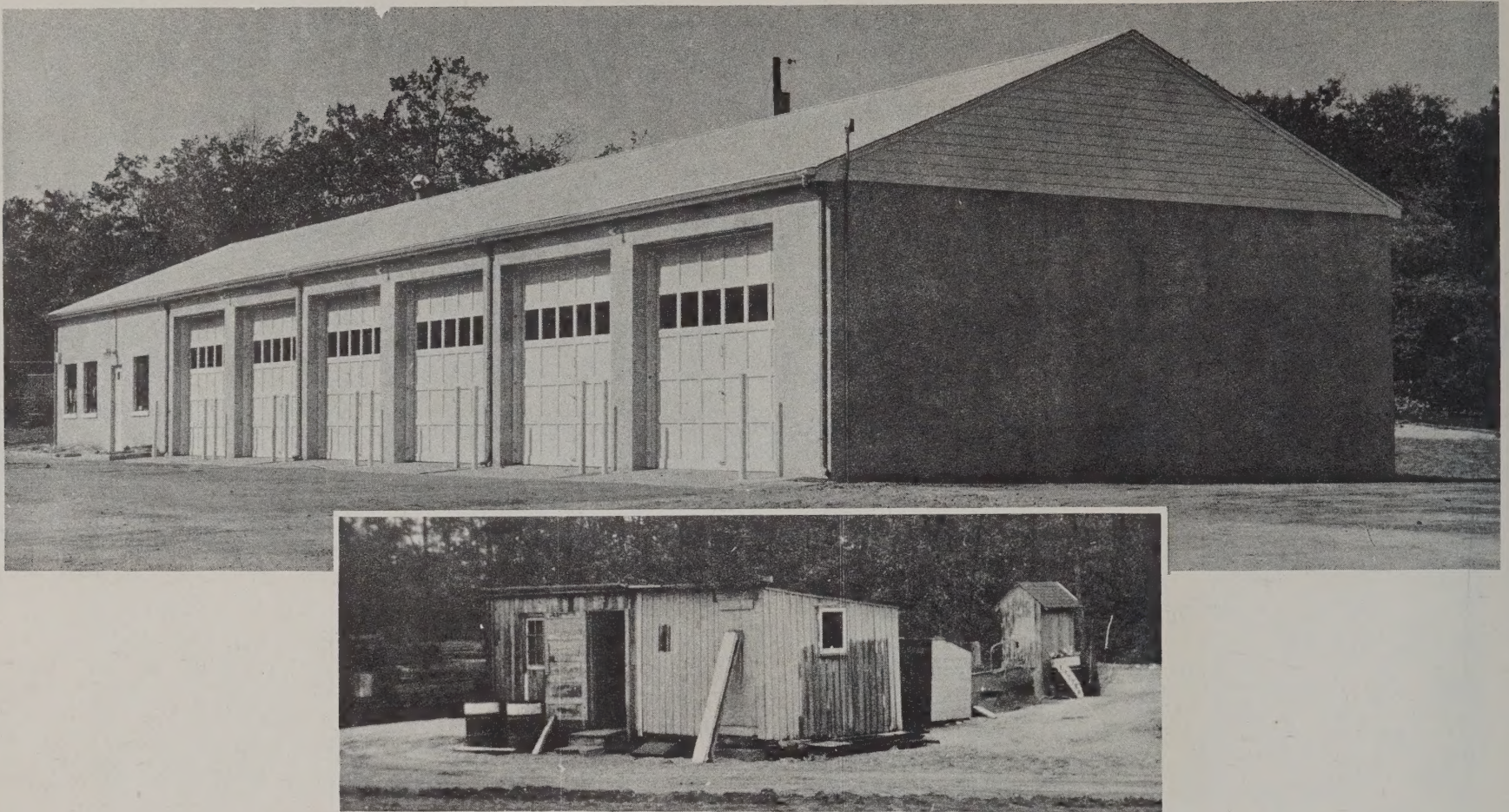


The building at Edgewater Park was the first masonry unit constructed. This structure is practically fireproof and provides all the minimum basic requirements at low cost. Again, all utilities and standard site components have been provided.

Route 130 - Bridgeport, Gloucester County



The new Bridgeport building was constructed on excess portions of property purchased for right-of-way. The yard has been developed to provide a new building and all necessary facilities. The rented structure formerly occupied, lacked all utilities except electricity.



Wherever possible, efforts are made to combine in each new building facilities for two or more crews in the interest of economy. Where combination is practical, the number of properties and buildings can be reduced. Enlargement of the basic building accomplishes this objective and also eliminates the need for installing multiple systems such as septic and water supply, power sources, building mechanical systems, and many other site necessities. Such an installation is at Manahawkin, which replaced two "eyesores" that were entirely inadequate for performing effective maintenance assignments.

Route 66 - Ocean Township, Monmouth County



Another example of the multiple crew installation is at Ocean Township, originally designed to accommodate two crews. Due to the lack of this type of facility in the area, a third crew has been temporarily assigned here pending future construction.

Related site development work included the installation of all utilities, a fenced exterior storage area, yard lighting, gas pumps, yard drainage, landscaping, and roadway paving.

Routes 22 and 202, Somerville, Somerset County



Still larger in size, the building under construction at Somerville is designed to accommodate three individual crews. It replaces a series of small former motel cabins which had more of the necessary utilities and which temporarily occupied a small right-of-way tract bordering the roadway. Occupancy is scheduled for December 2, 1963.

Routes 70 & 295, Cherry Hill Township, Camden County



Nearing completion is a new District 4 office and repair garage from which all District maintenance operations will be directed. The garage section has already been occupied and the office portion is scheduled for occupancy early in December. A wing addition which will accommodate five local maintenance crews is being designed for construction in the spring.

Volatile Storage Buildings

Substantial savings to the State in the cost of gasoline for its rolling stock has been realized by installing gasoline pumping stations at selected outlying maintenance yards and garages. Combination volatile storage and gas attendant buildings have been erected for storing materials of an explosive or volatile nature, relieving the main structure of such storage and accompanying additional insurance charges.



Routes 9 & 72, Manahawkin



Routes 35 & 38, West Belmar



Route 130, Edgewater Park



Route 1, Sand Hill

ACQUIRED BUILDINGS

In addition to the new construction program, the Department has been able to expand its maintenance facilities by purchasing properties with buildings suited to its operations after minor adaptation or revision.

Repair Garage - Route 22

Clinton Point, Hunterdon County



These photos illustrate both renovation and modification of a building and property purchased for use as a major repair garage. The exterior appearance was enhanced by the installation of overhead doors which make possible better operation, lighting and fuel economy. The new extension at the rear of the garage (under the sloping roof) houses a new boiler, office and parts storeroom which formerly occupied valuable repair and service area in the building.

Maintenance Building - Route 69, Flemington, Hunterdon County

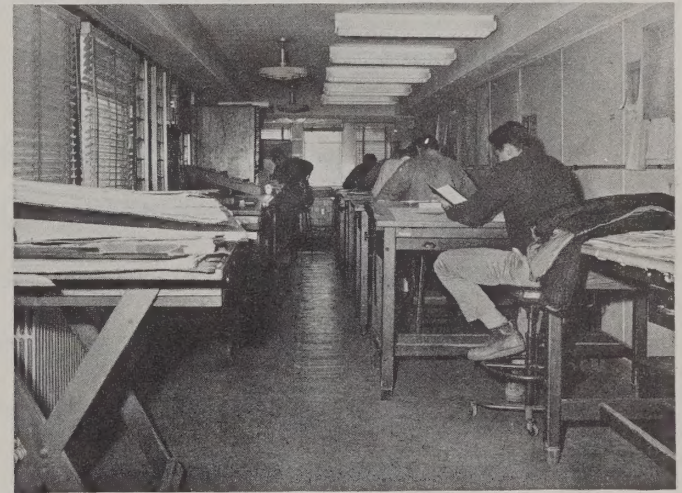


Another example of a property purchased for use as a maintenance yard, shown above, was formerly an oil company bulk distribution plant. To adapt the building for maintenance use, a three-bay extension was constructed and the interior modified to accommodate additional personnel.

Major renovations or additions have also been made to properties acquired at Lodi, Avenel, Jersey City, Branchville, and Hammonton.

Route 1, Metuchen Office, Middlesex County

The following photographs illustrate a typical renovation project involving conversion of a business establishment - a diner, restaurant and bar - to modern office space. Purchased in connection with a right-of-way acquisition for roadway improvement, the building now accommodates district staffs of two departmental divisions which formerly used rented space. The former diner, restaurant and bar areas have been converted to drafting rooms and offices.



SUMMARY AND CONCLUSION

Only 34 of the 418 buildings comprising the physical plant of the Division of Maintenance and Operations are classified as major buildings having a replacement value of \$25,000 or more. Of the major buildings, 14 alone are located at the Department's main headquarters in Trenton.

The great majority of minor structures fall far short of minimum standards of conditions and serviceability. On an average, one new modern building replaces a complex of four to six sub-standard buildings and provides vital facilities previously non-existent in most cases.

Of the 137 properties in use, 56 are not owned. Considerable sums are spent and time lost each year in moving field forces and equipment when they are forced to evacuate non-owned sites for any number of reasons. Obviously, funds can not be expended to improve these sites. Among the 81 owned properties are many right-of-way parcels which are occupied on a temporary basis, as well as others of sub-standard nature, which can not be economically developed into efficient sites.

These facts formulate an overall picture which demands, and is being given, close attention. It is the goal of the Department to provide at least the minimum facilities to improve the operations of its field forces wherever feasible, insofar as funds are available.

The reaction of field maintenance personnel to this improvement program has been gratifying. Supervision has reported marked increases in production and interest by crews which have been provided either new or renovated facilities.

Success of the program is dependent upon obtaining funds necessary to both build required physical plant and employ the few additional personnel required to execute the program.

Failure to keep pace with the expanding highway system by constructing new facilities for its maintenance, and to improve facilities on the existing road system, is to regress, and, in fact, to invite a down-grading of the high standards of maintenance for which our New Jersey state highway system is widely known.

NEW JERSEY STATE HIGHWAY DEPARTMENT
DIVISION OF MAINTENANCE AND OPERATIONS

NOVEMBER 1963